A Study of the Women's Education in England

—— from the Perspective of Women's Studies ——

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Education is crucial in determining a person's occupation and status within society. This paper will discuss the English educational system relative to the place of women in that society, from the establishment of compulsory education in the latter part of the nineteenth century, through the changes which developed out of industrialization, to the Sex Discrimination Act of 1975 and its effects.

I will begin with a survey of the English educational system in general and then examine discrimination against women. This investigation will show that women have been excluded from "national education" and that they have their own educational history — just as it can be said that history as traditionally taught has rarely conveyed the experience or consciousness of women.

I. OVER-VIEW OF ENGLISH EDUCATION

A) Characteristics of the English Educational System

The educational system of Great Britain is remarkably decentralized and subject to little overt control by the government. Scotland and Northern Ireland have their own educational systems. The educational system of Wales is similar to that of England but there are also significant differences. In considering the history of the establishment of education, I will focus on the English system.

It is said that Great Britain is divided into various socio-economic classes and that the English educational system grew out of this class society and reflects its structure. England has independent schools which are known as "public schools."[1] They have maintained their isolation from the state system of education. (In terms of American education, these public schools would be called private schools.) The public school systems broadly maintained the distinction between social classes. Weinberg, author of *The English Public Schools*, comments on the relation between the elite and the public schools: "As the elite is isolated from the mass, so the 'public schools' are isolated from

the state system of education."[2)]

Another characteristic of the English educational system is "eleven-plus," which is an examination administered within the state educational system. This is the selection procedure used by local educational authorities to determine how to channel children leaving primary schools, at approximately the age of eleven, into different types of secondary education.

There are four types of schools at the secondary level of the state system: grammar school, technical school, secondary modern school, and comprehensive school. All of these schools are operated by local educational authorities.

Grammar school provides mainly an academic course for children from age eleven to age sixteen or eighteen. This is the main route to the universities and the professions. The curriculum of the grammar school, or of the "grammar stream" within the comprehensive school, is dominated by the goal of passing the standard examination required for university entrance. In the second type of school, technical school, education is heavily vocational or technical. Commonly these schools accept students in the second tier of general ability as indicated by the eleven-plus examination, after the top ranking students have been selected for the grammar schools.

The third type of school, secondary modern school, was attended by the great majority of English children until many comprehensive schools were established. At these schools the education offered is not very academic and does not lead to the universities or the professions. Comprehensive schools accept all children regardless of whether their performance on the eleven-plus examination qualifies them for the other three types of schools. Thus, in the state educational system, at the age of eleven children are divided into three "streams" to continue their education at the secondary level.

To judge a student's ability in secondary education, there are two standard examinations given for the General Certificate of Education (GCE). The first examination is referred to as the ordinary level exam, and it is usually taken between the ages of fifteen and sixteen. The second, called the advanced level exam, is usually taken between ages seventeen and nineteen. A record of passes in two subjects at advanced level and three subjects at ordinary level is the minimum admission requirement for British universities. Only Oxford and Cambridge have their own selection criteria in addition to these standard examinations.

B) Three Educational Routes

Robin Pedley, who has been opposed to the eleven-plus examination, deplored the ways in which the English educational system mirrors English class society. He described English education as containing three routes:

Route 1: Open to the children of parents who can afford to pay large fees, this path takes a student from private kindergarten (age four to eight) to preparatory school (age eight to thirteen) to the "public" or independent school (age thirteen to eighteen) and, provided the student has the modest ability required to matriculate, to Oxford or Cambridge University. (Of all fourteen year olds in England and Wales in 1963, six percent were on this inside track.)

Route 2: A student following this route goes from the local primary school to the grammar school after passing the eleven-plus examination, and on to a provincial university after gaining passes in the General Certificate of Education (GCE) exams. It has become the norm for the successful local grammar-school student to secure a place at a provincial university.

Route 3: Students on this route are really exceptional cases within the group discussed under the second route. A brilliant minority gain admission to Oxford or Cambridge after performing well on the GCE examinations. Others may go to a technical college or directly into commerce or industry, instead of attending a provincial university.

C) Establishment of Public Education

1) Compulsory Elementary Education

Whereas Scotland was deeply committed to universal primary education and attempted to legislate the first compulsory education act in Europe at the end of the fifteenth century, the history of compulsory education in England lagged far behind. A landmark in the development of public education in England was the Elementary Education Act of 1870. Before this act, providing education had been left almost entirely to private and charitable organizations, especially the Church of England. The Elementary Education Act of 1870 made the state concerned with establishing schools. Next, the Education Act of 1976 prohibited the employment during school hours of children under ten years of age who lived within two miles of a school, thereby making elementary education virtually compulsory. Third, the Education Act of 1892 abolished the payment of fees in most schools.

As there were independent schools for children in the upper classes, public education

(not to be confused with the so-called "public schools" mentioned earlier) was established for the lower classes. The prescribed subjects of instruction were practical. In independent schools, subjects were academic, and children were educated to become the leaders of society.

2) Compulsory Secondary Education

By the end of the nineteenth century elementary education was nearly universal throughout England and the need for secondary education for more of the populace had become urgent. As the educational acts of the 1800's were responsible only for elementary education, grammar schools[3] and independent schools were the sole providers of secondary education.

The first legislation affecting secondary education was the Local Government Act of 1902. This act enabled local authorities to aid existing grammar schools and build new grammar schools. Thus, at this time there were three distinct systems of education: elementary for the working class, secondary for the middle class, and independent for the upper class.

In grammar schools, fees were charged and only elementary school children who passed the eleven-plus examination could hope to win a scholarship. Secondary education was restricted to those who parents could pay or to those who were outstanding achievers.

Influenced by the needs of early industrialization, which required a work force possessing basic discipline and skills, the advocacy of "secondary education for more people" became popular. The Education Act of 1944 promulgated the concept of "secondary education for all," establishing compulsory free secondary education throughout England.

However, independent schools remained outside the purview of government educational authorities, apart from being subject to inspection and approval by the Ministry of Education. These schools remained a privileged path to leadership in England.

Secondary education in the state educational system was divided by the eleven-plus examination into three categories: secondary grammar, secondary technical, and secondary modern. Only a few local authorities provided comprehensive schools.

D) Changing Patterns

The tide of industrialization at first required training in basic skills and social relations. Schools complied with meeting this need. As industrialization advanced, the eco-

nomic system began to demand a higher level of skills and a larger number of educated workers. Both industrialization and popular democracy influenced educational change in England.

1) Secondary Education

There have been many critiques of, and debates about, the validity of assessing a child's mental capacity by the age of twelve. On January 21, 1965 the House of Commons endorsed the Labour Government's declared objective of ending selection by the eleven-plus and eliminating separate tracking in secondary education. The ensuing reorganization has not progressed smoothly but much effort has been made to integrate secondary education.

The percentage of pupils of comprehensive and "middle deemed secondary" schools changed from 8.5 percent in 1965 to 75.6 percent in 1976. (See Table 1.)

Table 1 Maintained secondary schools

	1965	1970	1974	1975	1976
Numbers of maintained schools					
Comprehensive and middle deemed secondary	262	1,250	2,677	3,069	3,387
Grammar	1,285	1,038	675	566	477
Modern	3,727	2,691	1,509	1,216	1,002
Technical and other	589	406	218	184	116
Total secondary	5,863	5,385	5,079	5,035	4,982
Percentage of pupils					
Comprehensive and middle deemed secondary	8.5	32.0	62.0	69.7	75.6
Grammar	25.5	19.9	11.0	9.0	7.5
Modern	55.2	40.3	23.0	18.2	15.0
Technical and other	10.8	7.9	3.9	3.1	1.9
Total Secondary	100.0	100.0	100.0	100.0	100.0

Source: Statistics of Education 1976 Vol. 1 Schools, Department of Education of Science.

2) Higher Education

The Robbins Report (1963) had a notable impact in the field of higher education.[4] This report pointed out the vital role of higher education in fostering technical innovation and preparing society appropriately for technological change.

Twenty-four new universities were founded following the Robbins Report. These universities differ from the older, established universities in that they are state founded and financed, and they have the right to grant their own degrees and determine their own development. They are responsible for meeting social needs such as the expansion

of the student population and innovations in technology. By increasing the pool of qualified students who will enter scientific and other professional fields, these universities strengthen their own position relative to the older institutions of higher learning.

II. EDUCATIONAL HISTORY OF WOMEN

A) Discrimination

1) Upper and Middle Classes

Upper class children follow an elite course that leads them from private kindergarten to preparatory school, then to "public school," and on to Oxford or Cambridge, as discussed previously. However, this does not apply to all upper class children in England but primarily to boys only. Most public schools are all-male schools. Although there are some girls' public schools, these are different from boys' schools both in the aim of education and in their social role. In the quality of the facilities there is tremendous inequity. Furthermore, Oxford and Cambridge were all-male universities until relatively recently.

(a) Secondary Education

In the words of Cobbe, a pupil in a girls' school in the nineteenth century, we find a revealing picture of girls' education at that time:

> At the bottom of the scale were Morals and Religion and at the top were Music and Dancing... All the puils were daughters of men of standing, but all this fine human material was deplorably wasted. Nobody dreamed that any of us could in later life be more or less than an 'Ornament of Society.'... A boy's public school or grammar school would have taught in addition mathematics, Latin, Greek, theology, and games, but these subjects were considered too difficult and quite unsuitable for girls: Girls' schools, therefore, had a watered-down list of subjects, with some ladylike skills added. The only exercise taken in most girls' schools was a daily walk for one hour in a long and silent 'crocodile.'[5]

In those days girls wore restrictive layers of clothing, and their stiffly upright posture was enforced by tight corsets or stays. In some schools the girls were permitted to remove their stays for only an hour once a week in order to wash.

Families who could not afford boarding schools employed a governess for the girls. The governesses were usually poorly educated and their wages were low. The educational imperative for boys was toproduce leaders and governors in the growing Empire. Boys were sent to expensive "public schools" while the education of girls in a family

was sacrificed to pay for the education of their brothers.

Even if the girls could attend schools, they were not as well prepared as the boys to start a university or college course. In time, a campaign began to improve the academic standards of girls' schools. In the late nineteenth century, Miss Dorothea Beale and Miss Frances Mary Buss figured especially prominently in attempts to overcome prejudices against a highly academic curriculum for girls. But society was not yet ready to accept these efforts, which occurred simultaneously with the beginning steps toward establishing higher education for women.

(b) Higher Education

In higher education the discrimination against women is even more obvious. The symbols of educational achievement in England, Oxford and Cambridge, were founded early in the thirteenth century and existed exclusively for the education of men. Women were not admitted for nearly seven hundred years. Although there was a history of struggle to have this policy changed and end educational discrimination against women, many members of Cambridge University in 1880 held a demonstration against the admission of women. This events shows the formidable obstacles to overcoming such barriers, and the size of the demonstration (which involred most of the academic community) indicates the resistance of men to allowing women equal opportunity. While both universities permitted women to sit for their degree examinations at the end of the nineteenth century, these eminent institutions long remained unwilling to actually award women degrees. Oxford did not grant degrees to women until 1920, and Cambridge refused until after World War II.

Overall, in mid-nineteenth century opportunities for women in higher education were negligible. Although universities would not allow women to take examinations, the growing need for well qualified teachers was a stimulus to developing higher education for women.

A start was made in the training of infant school teachers in 1836. In the 1840's three colleges were founded to educate women to become teachers. These changes gradually had effects on the universities which were continuing to discriminate against women. In 1862 a committee was founded to work towards the admission of women to university examinations.

Women took the initiative and, with a small number of students, started a college for higher education, attempting to obtain university recognition as a women's college. In 1869 Emily Davies founded a women's college at Hitchin, which a few years later was

relocated at Cambridge as Girton College. Davies' position regarding women's education was that women should meet men on equal terms. She wished for full university recognition of women's colleges, which would have a curriculum and examination system exactly as for men. She would accept no lesser recognition which might stamp the women's college and awards as being inferior to those for men.

Following a different idea about achieving credibility, Anne Jemina Clough founded Newham College at Cambridge in 1871. Clough was willing to accept lesser university recognition; she believed that winning recognition gradually would be the only way to have a university for women. Between Clough and Davies there was some dissension, but despite conflicting ideas women's efforts toward higher education progressed steadily. Activist workers for women's rights in other areas contributed to the struggle.

The battle for recognition by the universities continued in spite of opposition from the academic community which wished to exclude women. At last, in 1878 London University allowed women to enroll as candidates. In 1892 the four Scottish universities did likewise. But as mentioned before, at Oxford and Cambridge degree programs were closed to women until well into the twentieth century.

In the medical field further obstacles hindered women from their education and careers. The first woman doctor, Elizabeth Blackwell, had to go to America to train as a doctor. Women were not accepted in British medical schools in spite of an urgent need for women doctors to treat female patients. Blackwell qualified in New York as a doctor and in 1859 became the first woman to be entered in the Medical Register in Britain. At that time foreign medical degrees were recognized by the British medical authorities.

After Blackwell's achievement other women followed her example and went abroad to study. But the British medical authorities speedily prevented any other women from following in Blackwell's footsteps by amending their regulations so that thereafter, foreign degrees were no longer valid in Britain.

It seemed impossible for a woman to become a licensed doctor and to work as one. The second woman who challenged this system and eventually found a way to practice medicine was Elizabeth Garrett. Garrett first became a nurse and thereby managed to attend lectures, but the objections of male students resulted in being forced to give up these classes. She went to Paris to study medicine and there she earned her medical degree. By now, however, foreign medical degrees were no longer recognized in Britain. Since Garrett could not practice as a doctor, she took and passed the examination

of the Society of Apothecaries. As a result, the authorities had no choice but to enter her name in the Medical Register and she began to practice. Later she founded a hospital for women, staffed completely by women.

After this, five women were at last admitted to British medical schools. Some doctors recognized the appropriateness of the need for women doctors to provide care for female patients. Nonetheless, these five women medical students were taught separately from their male counterparts and continued to meet opposition from the universities and the medical authorities.

2) Lower Class

(a) Elementary Education

Girls from poor families had little chance of having even the simplest form of education in 1800. As long as the law allowed parents to send their children out to work in factories and mines from age four on, most working-class girls had no opportunity to attend school.

Parents needed the extra wages earned by their children; therefore education suffered, and girls suffered more than boys in this respect. Brooks observes:

> It might have been worthwhile to teach boys how to read and to write in the hope of better jobs later on, but educating girls was widely held to be a waste of time. Until girls were married, they were needed to help with household duties, especially if the mother was out at work all day.[6]

Educational acts of the 1870's made elementary education compulsory and girls could attend school. But for girls, schools emphasized domestic training including sewing, knitting, cooking, hygiene and housewifery. Because of insufficient higher education for women, the quality of teaching was very low.

(b) Secondary Education

(i) Effects of the Education Act of 1902

Through the Education Act of 1902, secondary education became available to those students clever enough to win a scholarship or those whose parents could afford to pay the fees. The Board of Education laid down regulations for the secondary schools. All schools were obliged to teach English, history, geography, mathematics, natural science, at least one foreign language, physical exercise, singing and, for boys, manual instruction. For girls, manual instruction was replaced by domestic subjects, and for girls over fifteen, domestic subjects could be substituted for science and mathematics.

In 1923 a committee set up by the Board of Education considered the perceived differences between girls and boys and made the following recommendations:

a. As girls matured earlier than boys, senior girls should have more free time in school to develop their own interests.
b. Girls were especially good at music and art, so they should receive more instructions in these subjects.
c. Homework should be reduced for girls because they were expected to help with the housework at home more than boys were.
d. Teachers should take care that girls were not "overstrained" because they were physically weaker than boys.[7]

(ii) Effects of the Education Act of 1944

By the Education Act of 1944, free compulsory education was provided to all students up to the age of fifteen. Here it appears that equality between girls and boys was established up to age fifteen. However, two major educational reports, the Crowther Report (1959) and the Newsom Report (1963), indicate the difference between girls' education and boys'.

Brooks summed up the Crowther Report:

> The Crowther Report encouraged schools to recognize that a girl is more conscious than a boy of her nearness to marriage; her interest is 'dress, personal appearance, and problems of human relations should be given a central place in her education.'[8]

The authors of *An Equal Chance*, Birley and Dufton, discuss the curriculum proposed by the Newsom Report:

> The emphasis of the Newsom Report (1963) on widening the horizons of the secondary school, bringing in the outside world to the classroom to provide experiences more likely to evoke a response from children who have no academic interestsm is a useful starting point.[9]

In the education of a girl this meant preparing her for the real world of homemaking, entertaining, and looking after young children and old people. The Newsom Report suggested that girls should have some experience in running a flat for a week, of cooking and serving meals, and working in a children's nursery or a home for the elderly.

As secondary education spread, many new schools were built. These schools have modern kitchen equipment for girls but not enough science laboratories. Girls continue to be educated to prepare for their traditional roles as a mother and a wife.

B) Transition

Industrialization and technological change had far reaching effects on education in England. With the founding of new universities after 1965, one would expect women as well as men to benefit. I will present several ways of tracing the changes in women's

educational opportunities.

1) Secondary Education

(a) Numbers of Students

According to the statistics of the Annual Abstract of Statistics for the United Kingdom, for the years 1965 through 1971, in public sector schools the percentage of boys older than the minimum age for ending compulsory education (15 years old) was greater than that of girls. In 1972 and 1973 the percentage of 16 year old girls was greater than that of boys. IN 1972 the minimum age for leaving school was raised to 16, and the figures for 1974 show the first reflection of this change. The percentage of 16 year old girls rose from 31.03% in 1973 to 43.19% in 1974 and that of boys rose from 30.32% to 42.08%. The percentage of 17 year old girls was also greater than that of boys in both 1974 and 1975. Since 1972 the percentage of girls beyond the minimum school age has been greater than that of boys. (See Table 2.) These figures indicate that more girls have stayed in school after the minimum age, so that in terms of numbers of students, it would seem that equal education at the secondary level has been reached.

(b) Curriculum

In 1972 the Report of a Labour Party Study Group on Discrimination Against Women pointed out the paucity of science and workshop facilities in girls' schools. According to this report, differences in curriculum for girls and boys occur even in coeducational schools; for example, all the girls study biology and all the boys study physics and chemistry. Further, the Report analyzes an important basis for differences:

> It is common for girls to do domestic science while boys do woodwork and metalwork. The school may see these as vocational subjects: homemaking for girls and technical subjects for boys. But technical skills are paid and bring independence, whereas 'homemaking' is unpaid and by itself implies dependence.[10]

Regarding academic achievement, the girls perform at least as well as the boys, according to this Report, in spite of the institutional bias against fully equal education. In being awarded the Certificate of Secondary Education, more girls than boys are successful in all groups of subjects, and their superiority over the boys is mot marked in mathematics and modern languages.

Table 2 Pupils in schools: public sector schools [1]
Numbers and percentage of the population 1965-1975

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974 [2] [3]	1975
Age at the beginning of January Number (thousands)											
Boys and girls											
2-4	239.4	240.4	249.1	264.9	280.6	293.2	317.7	352.9	390.1	475.3	499.2
5-10	4,551.3	4,664.3	4,808.7	4,956.0	5,093.4	5,223.7	5,335.1	5,415.8	5,432.7	5,405.1	5,343.7
11	713.1	706.3	702.6	736.2	762.4	78.2	788.7	826.2	846.1	870.5	883.7
12-14	2,098.0	2,091.4	2,098.4	2,104.1	2,129.2	2,183.2	2,258.0	2,319.4	2,380.6	2,441.3	2,515.6
Total 2-14	7,601.7	7,702.4	7,858.8	8,061.3	8,265.6	8,480.3	8,699.5	8,914.2	9,049.5	9,192.3	9,242.3
15	417.1	414.1	419.5	443.1	463.7	468.3	476.3	508.8	540.3	771.0	779.6
16	174.1	177.5	182.2	195.4	209.4	221.1	226.1	235.6	245.0	351.2	379.8
17	98.1	94.8	98.9	103.9	110.1	117.4	123.1	127.3	128.6	128.2	131.4
18 and over	33.1	37.0	37.2	39.0	3.3	40.0	41.7	43.8	43.3	42.3	41.6
Total	8,324.2	8,425.9	8.596.6	8,842.7	9,088.2	9,327.1	9,566.6	9,829.7	10,006.7	10,485.1	10,574.6
Boys											
14	362.1	353.9	353.5	361.5	358.9	356.8	372.5	388.1	397.4	402.0	418.5
15	214.4	212.7	215.4	226.9	237.9	239.9	244.0	260.7	276.7	394.0	399.1
16	93.0	93.8	95.4	101.9	107.8	113.9	116.2	120.7	124.6	178.0	191.5
17	54.9	52.3	54.0	55.8	58.5	61.4	64.5	66.1	66.5	65.2	66.5
18 and over	21.4	23.7	23.9	24.6	24.3	24.4	25.0	26.2	25.4	24.4	23.8
Girls											
14	345.8	338.5	339.6	344.7	342.6	340.8	357.2	370.0	379.7	382.9	400.0
15	202.7	201.4	204.1	216.2	225.8	228.4	232.3	248.1	263.5	377.0	380.5
16	81.1	83.7	86.7	93.6	101.6	107.2	109.8	114.8	120.4	173.2	188.2
17	43.3	42.5	44.9	48.1	51.6	56.0	58.8	61.3	62.1	63.0	64.9
18 and over	11.7	13.3	13.3	14.4	15.1	15.6	16.7	17.7	17.9	17.9	17.8
As a percentage of population											
Boys and girls											
2-4	8.67	8.50	8.60	9.09	9.66	10.29	11.36	12.97	14.65	18.10	19.59
5-10	94.31	94.53	94.58	94.83	94.81	94.92	95.10	96.35	97.00	97.14	97.18
11	92.97	92.81	93.31	94.02	93.78	93.66	93.67	93.57	93.70	94.41	94.27
12-14	91.42	91.77	92.20	92.65	92.82	92.98	92.92	91.78	92.77	92.93	93.24
15	51.24	43.09	55.20	58.69	60.54	61.46	63.00	63.05	65.89	91.46	91.44
16	20.17	21.75	23.30	25.61	27.63	28.71	29.56	30.01	30.66	42.62	44.96
17	10.28	10.96	12.08	13.22	14.41	15.37	15.95	16.40	16.57	16.03	15.92
18 and over [4]	3.74	3.87	4.29	4.74	5.00	5.19	5.44	5.61	5.56	5.45	5.19
Boys											
14	90.75	91.21	92.06	92.69	92.26	92.20	92.66	91.53	92.20	91.99	93.00
15	51.41	53.18	55.52	58.78	60.69	61.67	63.05	62.97	65.72	90.99	91.08
16	21.04	22.39	23.85	26.06	27.93	28.98	29.72	29.95	30.32	42.08	44.18
17	11.23	11.78	12.86	13.88	15.04	15.82	16.41	16.57	16.63	15.86	15.71
18 and over [4]	4.71	4.83	5.38	5.84	6.09	6.24	6.43	6.50	6.33	6.10	5.78
Girls											
14	91.00	91.49	92.03	92.66	92.59	92.61	93.51	92.27	92.84	92.71	94.21
15	51.06	53.00	55.16	58.59	60.37	61.40	62.95	63.13	66.04	91.95	91.82
16	19.26	21.08	22.70	25.09	27.31	28.44	29.36	30.05	31.03	43.19	45.77
17	9.31	10.10	11.23	12.53	13.80	14.97	15.51	16.26	16.52	16.20	16.15
18 and over [4]	2.71	2.85	3.14	3.58	3.90	4.12	4.43	4.68	4.74	4.76	4.57

[1] As at January. The Scotland component for the 1975 figures are at previous September. [2] From 1974 onwards, part-time pupils (aged 2-4) in England and Wales and in Scotland have each been counted as one pupil; in earlier years they are included as 0.5 pupil. [3] The minimum school leaving age was raised to 16 on 1 September 1972. The figures for 1974 are the fist to reflect this change. [4] As a percentage of the 18 years age-group.

Sources: Annual Abstract of Statistics 1976, General Statistics Office. Department of Education and Science; Scottish Education Department of Education (Northern Ireland).

(c) General Certificate of Education (GCE)

(ii) Number of Candidates

Examining the statistics for all the candidates taking the 1964-65 winter examination in England and Wales, one finds that candidates for the ordinary level examination were comprised of 58.9% boys and 41.1% girls. The percentage of boys was 17.8% higher than that of girls. At the combined ordinary and advanced levels, boys made up 76.7% of the total and girls, 23.3%, a difference of 53.4%. At the advanced level only, boys were 78.0% of the total and girls were 22.0%, a margin of 56.0%. (See Table-3)

Table-3 GENERAL CERTIFICATE OF EDUCATION EXAMINATIONS
Number of candidates from schools and further education establishments
Winter examination 1964-65

	Ordinary level only			Ordinary and Advanced levels			Advanced level only		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Maintained schools									
Modern and all-age	6,788	5,058	11,846	30	11	41	36	7	43
Grammar	29,899	24,360	54,259	255	85	340	1,325	376	1,701
Technical	3,445	1,853	5,298	39	3	42	169	16	185
Bilateral and multilateral	1,084	1,087	2,171	2	—	2	19	9	28
Comprehensive	4,866	3,243	8,109	44	18	62	118	23	141
Other secondary	1,790	1,155	2,945	7	10	17	10	4	14
Total	47,872	36,756	84,628	377	127	504	1,677	435	2,112
Direct grant schools	4,082	3,222	7,304	5	2	7	68	58	126
Independent schools recognised as efficient	14,235	8,086	22,321	14	9	23	125	85	210
Grant-aided further education establishments	12,892	8,046	20,938	283	68	351	1,331	323	1,654
Total	79,081	56,110	135,191	679	206	885	3,201	901	4,102

Source: Statistics of Education Part 3: 1965, Department of Education and Science.

How did the percentages change during the following nine years? The number of candidates taking the winter examination in 1973-74 may be broken down as follows:

	Boys	Girls	(N)
Ordinary level only	53.0%	47.0%	(142.161)
Ordinary and advanced	61.8%	38.2%	(922)
Advanced level only	70.4%	20.6%	(5.884)

(See Table-4)

Thus, over the course of nearly a decade, at the ordinary level the percentages of girls and boys approached parity, but at the advanced level the number of girls was still significantly lower than that of boys, by a gap of 49.8%.

Table-4 G.C.E. Winter examination, 1973-74
Candidates from schools and further education establishments (1)

TABLE 23 [24]

	Ordinary level only			Ordinary and Advanced levels			Advanced level only		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Maintained schools									
Modern	3,180	3,828	7,008	67	42	109	93	40	133
Grammar	13,785	13,596	27,381	41	7	48	691	218	909
Technical	1,037	770	1,807	10	—	10	42	6	48
Comprehensive	27,900	26,634	54,534	145	62	207	999	432	1,431
Other secondary (2)	1,743	1,605	3,348	11	5	16	50	21	71
Total	47,645	46,433	94,078	274	116	390	1,875	717	2,592
Direct grant schools	3,671	2,906	6,577	6	1	7	57	37	94
Independent schools recognised as efficient	12,936	7,227	20,163	32	92	124	314	103	417
Grant-aided further education establishments	10,961	10,382	21,343	258	143	401	1,894	887	2,781
Total (1)	75,213	66,948	143,161	570	352	922	4,140	1,744	5,884

(1) Excluding candidates from independent schools not recognised as efficient, special schools, and independent further education establishments, candidates from outside England and Wales and privately entered candidates.
(2) Secondary schools not separately classified.
Source: Statistics of Education, 1974 Vol. 2, School Leavers CSE and GCE. Department of Education of Science.

(ii) Estimated Output of Students with Specified General Certificate of Education (GCE) Qualifications

In 1963-64 the number of ordinary level passes was almost even between girls and boys. However, at the advanced level passes increased, the percentage of girls achieving passes decreased:

	Boys	Girls	(N)
One A-level pass	52.1%	47.9%	(14.4)
Two A-level Passes	53.9%	46.1%	(19.2)
Three or more A passes	66.7%	33.3%	(37.2)

In 1973-74 statistics for the ordinary level passes remained nearly the same as for ten years earlier. But at the advanced level the percentage of passes for girls increased, with an impressive gain in the group who attained three or more A-level passes.

	Boys	Girls	(N)
One A-level pass	48.0%	52.0%	(22.5)
Two A-level passes	49.7%	50.3%	(29.2)
Three or more A-level passes	59.5%	40.5%	(54.3)

(See Table-5)

Numbers in thousands

The achievement of girls at the advanced level improved by 4.4%, 4.0% and 7.2%, respectively.

Table 5 Estimated output of students with specified G.C.E. qualifications, 1963-64, 1968-69 to 1973-74 (1)

Numbers in thousands

	Academic years						
	1963-64	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
From schools only (2)							
Boys							
Number of "O" level passes (3)							
0	227.4	185.7	180.8	181.5	189.0	67.4	185.5
1-2	28.6	35.7	37.9	36.8	40.6	43.0	55.2
3-4	25.9	24.8	25.7	24.8	26.1	27.8	29.8
5 or more	64.8	73.5	73.7	74.4	78.2	79.5	80.7
1 or more	119.3	133.9	137.3	135.9	144.8	150.3	165.8
Number of "A" level passes							
1	7.5	10.7	10.5	11.2	11.0	11.5	10.8
2	10.3	13.7	14.7	14.9	14.9	15.9	14.5
3 or more	24.8	29.9	29.3	30.7	31.6	30.7	32.4
1 or more	42.6	54.3	54.6	56.8	57.5	57.2	57.6
Girls							
Number of "O" level passes (3)							
0	219.8	173.1	169.7	167.5	174.8	55.0	165.4
1-2	26.4	33.7	34.9	36.1	37.7	41.6	58.4
3-4	24.1	25.0	25.9	24.6	26.5	28.5	31.3
5 or more	58.5	69.2	71.1	72.2	75.4	76.6	78.6
1 or more	109.0	127.9	132.0	132.9	139.6	146.7	168.3
Number of "A" level passes							
1	6.9	10.7	10.3	10.7	11.8	11.6	11.7
2	8.8	13.2	14.1	14.6	14.2	14.4	14.7
3 or more	12.4	18.6	19.5	21.1	21.6	22.3	22.0
1 ore more	28.1	42.5	43.9	46.5	47.6	48.2	48.4
Boys and girls							
Number of "O" level passes (3)							
0	447.2	358.8	350.5	349.0	363.8	122.4	350.9
1-2	55.0	69.4	72.8	72.9	78.3	84.6	113.7
3-4	50.0	49.8	51.7	49.3	52.6	56.3	61.1
5 or more	123.4	142.7	144.8	146.6	153.6	156.0	159.3
1 or more	228.4	261.9	269.3	268.8	284.4	297.0	334.1
Number of "A" level passes							
1	14.5	21.4	20.9	22.0	22.8	23.0	22.5
2	19.0	26.9	28.8	29.6	29.1	29.4	29.2
3 or more	37.2	48.5	48.8	51.8	53.2	53.0	54.3
1 or more	70.7	96.8	98.5	103.3	105.1	105.4	106.0
From schools and grant-aided further education establishments (2)							
Men							
Number of "A" level passes							
1	10.1	15.6	16.1	16.6	17.0	17.2	16.5
2	11.6	16.9	18.1	18.2	18.2	18.6	18.1
3 or more	26.6	33.0	32.9	34.4	35.0	34.3	35.7
1 or more	48.3	65.5	67.2	69.2	70.2	70.2	70.3
Women							
Number of "A" level passes							
1	9.3	16.2	16.1	16.4	18.7	19.4	19.6
2	9.3	15.4	16.5	17.0	16.7	17.2	17.8
3 or more	13.1	19.8	20.8	22.8	23.5	24.3	24.1
1 or more	31.7	51.3	53.4	56.3	58.9	61.0	61.5
Men and women							
Number of "A" level passes							
1	19.4	31.8	32.2	33.0	35.7	36.7	36.1
2	20.9	32.2	34.6	35.3	34.9	35.9	35.8
3 or more	39.7	52.7	53.8	57.2	58.5	58.6	59.8
1 or more	80.0	116.8	120.6	125.5	129.1	131.2	131.7

(1) Excluding special schools.
(2) See paragraph 43 to 45 of the Explanatory Notes.
(3) Including after 1963-64. "O" level passes awarded on "A" level papers and Grade 1 results in the C.S.E. examinations.
Source: Statistics of Education, 1974 Vol. 2 School Leavers CSE and GCE. Department of Education of Science.

2) Higher Education

As mentioned previously, the needs of industrialization and technological development were powerful incentives for the founding of new universities in England. Let us look now at some of the effects these changes had on the higher education of women.

The average percentage of full-time undergraduate women students in England and Wales between 1959-60 and 1964-65 was 26.4%; the percentage in 1974 was 33.9%.[11] The average percentage of full-time post-graduate women students between 1959-60 and 1964-65 was 20.0%; the percentage in 1974 was 25.8%.[12] (See Table-6)

These figures reflect a steady in crease in the number of women students.

Table-6 Full-time students by level of study, 1953-54 to 1966-67

Academic years

	Students at undergraduate level All students			Students at postgraduate level			Total undergraduate and postgraduate students		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Country of study England and Wales									
1953-54	42,098	13,816	55,914	8,441	2,249	10,690	50,539	16,065	66,604
1954-55	42,660	14,178	56,838	8,320	2,404	10,724	50,980	16,582	67,562
1955-56	44,360	14,951	59,311	8,688	2,406	11,094	53,048	17,357	70,405
1956-57	46,961	15,752	62,713	9,271	2,541	11,812	56,232	18,293	74,525
1957-58	50,042	16,532	66,574	9,947	2,510	12,457	59,989	19,042	79,031
1958-59	52,899	16,940	69,839	10,501	2,688	13,189	63,400	19,628	83,028
1959-60	54,369	17,192	71,561	11,881	3,015	14,896	66,250	20,207	86,457
1960-61	55,134	18,091	73,225	12,713	3,232	15,945	67,847	21,323	89,170
1961-62	56,444	19,941	76,385	13,952	3,373	17,325	70,396	23,314	93,710
1962-63	58,025	21,866	79,891	14,922	3,618	18,540	72,947	25,484	98,431
1963-64	60,716	23,661	84,377	16,281	3,866	20,147	76,997	27,527	104,524
1964-65	64,869	25,777	90,646	17,988	4,794	22,782	82,857	30,571	113,428
1965-66 (1)	84,008	30,656	114,664	20,506	5,320	25,826	104,514	35,976	140,490
1966-67 (2)	91,071	34,566	125,637	23,183	5,915	29,098	114,254	40,481	154,735

Source: Statistics of Education 1966 Part 3, Department of Education of Science.

For the academic years 1967-68 and 1974-75, the percentage of women students in Great Britain in various fields was the following:

	1967-68	1974-75
Language, literature and areas studies	54.5%	59.1%
Education	47.6%	50.4%
Arts other than languages, music, drama and the visual arts	41.2%	48.9%
but		
Social administration and business	31.8%	35.0%
Science	26.0%	27.0%
Engineering and technology	1.5%	3.9%

(See Table-7) (This data includes England, Wales and Scotland)

Table-7 Universities: courses taken by full-time students
Great Britain

Academic years — number of students

		1967/68	1968/69	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75
Education:	Men	3,731	4,197	4,440	4,673	4,571	4,627	4,806	4,935
	Women	3,391	3,918	4,061	4,487	4,018	4,142	4,485	5,012
Medicine, dentistry and health:	Men	15,244	15,733	15,901	16,363	16,405	16,679	17,318	17,684
	Women	5,251	5,477	5,838	6,491	7,206	7,945	8,711	9,421
Engineering and technology:	Men	31,848	33,535	34,596	35,475	35,978	35,036	34,217	33,984
	Women	500	527	695	817	965	1,147	1,233	1,377
Agriculture, forestry and veterinary science:	Men	3,306	3,557	3,649	3,689	3,475	3,493	3,497	3,580
	Women	632	690	749	853	912	1,008	1,082	1,161
Science:	Men	40,782	42,211	42,085	43,253	44,696	44,939	44,326	44,015
	Women	11,857	12,420	12,416	13,274	14,277	14,964	15,353	16,010
Social administration and business studies:	Men	27,294	28,970	30,546	31,927	33,236	33,971	35,144	36,287
	Women	12,665	13,412	13,374	14,474	16,006	16,821	18,117	19,633
Architecture and other professional and vocational subjects:	Men	2,692	2,955	3,327	3,146	3,586	3,507	3,562	3,862
	Women	603	698	791	769	878	958	1,060	1,228
Language, literature and area studies:	Men	11,419	11,738	11,788	11,944	12,104	12,047	12,010	12,018
	Women	13,755	14,017	14,126	14,531	15,541	16,134	16,726	
Arts other than languages, music, drama and visual arts:	Men	8,640	9,900	11,319	11,650	11,227	11,428	11,559	11,683
	Women	6,062	7,339	9,067	10,135	9,904	10,520	10,888	11,234

Source: Statistics of Education 1976 Vol. 6 University, Department of Education of Science.

These figures show that women's fields of study remained concentrated in the arts and humanities, with much lower participation in social administration, business, science, engineering and technology, areas in which they have traditionally faced discouragement and discrimination.

In courses below the advanced level, women take more courses and predominate in some of these, such as the Pre-Diploma in Art and Design and the Certificate in Secondary Education. In advanced level courses, men generally outnumber women except in art degrees and art teachers' Diploma Certificates, where women make up 50.0% and 47.7% of the students, respectively. Marked discrepancy occurs between women and men in the area of university higher degrees, where only 1.4% of the students are women, and in post-graduate and research positions for the Diploma in Management Studies, where only 4.5% are women. Here again we see the usual limitations of fields of study and the significant inequity between women and men at the advanced level. (See Table-8)

Table-8 Students on courses leading to recognised qualifications

November 1974 Number of students

	Mode of attendance								Total		
	Full-time		Sandwich		Part-time day		Evening only				
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Total
Advanced courses											
University first degree	2,403	1,505	194	17	146	42	1,064	398	3,807	1,962	5,769
C.N.A.A. first degree	18,918	11,761	16,837	2,570	2,222	420	475	127	38,452	14,878	53,330
of which											
Art degrees	4,510	4,519	99	107	—	—	—	—	4,609	4,626	9,235
University higher degree	1,038	170	—	—	167	25	76	15	1,281	210	1,491
C.N.A.A. higher degree	436	131	31	7	452	35	223	34	1,142	207	1,349
of which											
Art degrees	136	99	7	6	2	3	—	—	145	108	253
Postgraduate and research	1,024	503	23	1	4,209	314	1,635	141	6,891	959	7,850
of which											
Diploma in Management Studies	387	45	23	1	3,595	157	1,442	51	5,447	254	5,701
Higher National Diploma	4,714	1,626	9,790	1,737	—	—	—	—	14,504	3,363	17,867
of which											
Business Studies	2,969	1,206	1,373	335	—	—	—	—	4,342	1,541	5,883
Higher National Certificate	—	—	29	1	26,573	41,176	3,479	333	30,081	4,510	34,591
of which											
Business Studies	—	—	29	1	4,154	1,332	1,820	251	6,003	1,584	7,587
Art Teacher's Diploma/ Certificate	253	231	—	—	—	—	—	—	253	231	484
Professional qualifications	9,896	4,693	2,014	387	28,828	4,202	20,625	2,915	61,363	12,197	73,560
of which											
Burnham grad. equivalent	2,653	546	642	52	5,758	606	3,824	318	12,877	1,522	14,399
Final/Stage III other than Burnham	1,919	1,490	502	105	6,360	1,246	7,208	1,044	15,989	3,885	19,874
Single other than Burnham	1,854	1,713	332	136	6,291	565	5,234	516	13,711	2,930	16,641
Intermediate	3,470	944	538	94	10,419	1,785	4,359	1,037	18,786	3,860	22,646
College diplomas/certificates	4,666	2,760	1,243	262	1,840	380	434	139	8,183	3,541	11,724
Other advanced	1,204	2,565	9	4	4,220	2,097	2,789	990	8,222	5,656	13,878
of which											
H.N.C.-supplementary	—	—	1	—	2,758	52	2,237	54	4,996	106	5,102
H.N.D.-supplementary	63	9	—	—	33	—	5	—	101	9	110
City and Guilds teacher's certificate	—	—	—	—	26	35	24	21	50	56	106
University diploma/certificate	166	296	—	—	599	1,418	453	889	1,218	2,603	3,821
Total advanced courses	44,552	25,945	30,170	4,986	68,657	11,691	30,800	5,092	174,179	47,714	221,893
Non-advanced courses											
Ordinary National Diploma	12,250	6,236	3,023	313	—	—	—	—	15,273	6,549	21,822
of which											
Business Studies	4,345	4,034	64	35	—	—	—	—	4,409	4,069	8,478
Ordinary National Certificate	—	—	640	2	40,059	11,224	3,476	762	44,175	11,988	56,163
of which											
Business Studies	—	—	—	—	10,737	4,094	2,433	684	13,170	4,778	17,948
City and Guilds	26,320	12,402	1,295	154	311,752	34,378	33,008	9,608	372,375	56,542	428,917
of which											
R.E.B.'s	3,760	2,450	118	3	30,673	3,105	1,700	2,598	36,251	8,156	44,407
G.C.E. 'O' level	14,649	16,627	—	—	6,776	14,374	56,097	66,075	77,522	97,076	174,598
G.C.E. 'A' level (inc. Maths or Science)	15,663	5,654	—	—	2,549	1,812	9,042	5,196	27,254	12,662	39,916
G.C.E. 'A' level-other	9,939	11,999	—	—	2,587	6,030	14,573	20,481	27,099	38,510	65,609
Other non-advanced	17,197	29,894	627	1,669	23,367	16,548	25,553	10,222	66,744	58,333	125,077
of which											
Certificate in Secondary Education	99	98	—	—	432	188	22	18	553	304	857
Pre Diploma in Art and Design	3,092	3,697	—	—	1	—	12	18	3,105	3,715	6,820
Professional qualifications	5,725	15,114	148	1,554	16,440	10,065	23,092	8,949	45,405	35,682	81,087
College diplomas/certificates	5,020	4,116	360	102	927	527	1,001	826	7,308	5,571	12,879
Certificate in Office Studies	673	2,658	—	—	3,961	5,291	33	100	4,667	8,049	12,716
Pre H.N.D. Certificate	75	28	—	—	1,334	125	834	86	2,243	239	2,482
Total non-advanced courses	96,018	82,812	5,585	2,138	387,090	84,366	141,749	112,344	630,442	281,660	912,102
Total	140,570	108,757	35,755	7,124	455,747	96,057	172,549	117,436	804,621	329,374	1,133,995

Common abbreviations:

B.I.M.	British Institute of Management
C.A.T.	College of Advanced Technology
C. & G.	City and guilds of London Institute
C.N.A.A.	Council for National Academic Awards
C.S.E.	Certificate of Secondary Education
Dip.A.D.	Diploma in Art and Design
Dip. Tech.	Diploma in Technology
F.T.C.	Full Technological Certificate (of City and Guilds of London Institute)
G.C.E. "O"	General Certificate of Education (Ordinary level)
G.C.E. "A"	General Certificate of Education (Advanced level)
H.N.C.	Higher National Certificate
H.N.D.	Higher National Diploma
N.D.D.	National Diploma in Design
O.N.C.	Ordinary National Certificate
O.N.D.	Ordinary National Diploma
P.G.D.	Postgraduate Diploma

Source: Statistics of Education 1974 Vol. 3, Further Education, Department of Education of Science.

C) Effects of the Sex Discrimination Act of 1975

Under the Labour Party which came into power in 1974, the Sex Discrimination Act came into force on December 29, 1975. Many people anticipated enormous benefits for women in terms of equal educational opportunities. One women's organization, the National Joint Committee of Working Women, demanded reform of textbooks which reinforced conventional women's roles and promoted sexual stereotypes in the curriculum. Women in the Science Education Project published a report in the *Times Educational Supplement* entitled "Bias Against Girls Keep Majority Out of the Labs."[13] This article stated that at the secondary education level only one girl for every ten boys studied physics, and it pointed out the lack of science facilities for girls as well as the social attitudes against women in science.

The implications for education of the Sex Discrimination Act were described by Frances Stadlen in terms of the following desirable directions:

> Under the section on education in the new Act, it is unlawful to discriminate against a pupil 'in the way it affords her access to any benefits, facilities or services, or by refusing or deliberately omitting to afford her access to them or subjecting her to any other detriment.'
>
> It is now illegal in mixed schools to ban a girl from metalwork and a boy from needlework...
>
> Some l.e.a.s. have already taken steps to put their house in order. The Inner London Education Authority have issued a report from their standing conference on career opportunities for women and girls. This promises to play a full part in removing 'the present disadvantages suffered by women and girls.'[14]

Although under the Equal Opportunity Office efforts were made to achieve educational equality, it would take time for the results to show. In the five-month period from August 1976 through December 1977 *The Times* (London) and *The Times Educational*

Supplement printed many reports about the policies of local educational authorities which discriminated against girls and the biases of teachers against career development for girls. For example, domestic courses were still required for girls only, and there were different course options for girls and boys. Also, the Head Masters' [*sic*] Conference of September 1977, concerning independent schools, acknowledged that the independent boys' schools had not provided equal opportunity for girls. Besides these findings it was reported that the government had not allocated enough money to provide equal education.

Mrs. William, Secretary of State for Education and Science, reported in the Equal Opportunity Commission Conference of September 1977:

> Girls should be given more opportunity in unfamiliar fields such as engineering... There was a strong impression that much stereotyping was still to be found in school. We cannot rest until any girl may choose to take metalwork or carpentry and, if it comes to that, any boy can take cookery or child care...[15]

Although legislation, in England prepared the way for the equal education of girls and boys, actual conditions in the 1970s fell short of the recommendations of the Sex Discrimination Act of 1975.

III. SUMMARY AND CONCLUSION

In practice, so-called "national" education in England has meant education for only part of the population: boys/men. Historically the female citizens have been excluded from national education. Even after compulsory education was established and the number of girls benefiting from it increased, prevalent social attitudes as well as the ideas of educational authorities kept the education of girls bound to traditional women's roles of wife and mother.

England has a class society and in the educational system likewise there is obvious segregation by economic class. In both upper and lower classes, girls have suffered from sex-based discrimination.

Compared with the past, many women students have entered the fields of education and medicine, but even in these areas women have constantly encountered obstacles based on gender, up until and beyond the Sex Discrimination Act of 1975.

Through the influence of industrialization and technological innovation, new trends developed in English education. But as of the 1970's the limited fields of study showing

equal participation of girls and the marked decrease in the numbers of girls or women at the advanced level of study remained noteworthy. Educational opportunities for girls in science continued to be more limited than for boys. There have been disadvantages in the lack of educational facilities, the lack of women teachers, and in social barriers to full acceptance of women in certain fields of study and work.

Despite the Sex Discrimination Act which became law under the Labour Government in December of 1975, the battle against traditional ideas of women's education was not over. As of the 1970's sex-based stereotyping persisted and the desired reforms were not realized.

Throughout the history of women's education, reforms have come about only when women have taken the initiative to question the status quo; but widespread changes in society are a necessary context for opening up opportunities to significant numbers of women. Economic and technological developments, ideological factors, political measures — all of these affect the status of women. The educational system is but one element of the entire social fabric. It reflects the roles assigned to women and men while also helping to create or define these roles. A contemporary educational system should encourage each individual to strive to realize her or his full potential, regardless of a student's gender, and provide equal opportunity to do so. Without such an educational system no society can be said to hold as its ideal the true happiness of the individual citizen.

FOOTNOTES

1) Some of independent schools such as Eton and Winchester were ancient and almost monastic foundations and other were founded in the 19th century for the rising middle class. The term, 'public school' is not capable of exact defenition, but it is most commonly applied to the bigger or more famous independent boy's boading schools. Robin Pedley, The *Comprehensive School* (Baltimore: Pelican Books, 1963), p.213
2) Ian Weinberg, *The English Public Schools* (New York: Atherton Press, 1967), p.26.
3) Grammar schools had existed in towns since the 17th century. They had provided some kinds of the secondary education at a modest fee for the sons of the townsfolk. They were supported by charitable endowments. *Encyclopedia Americana*, 1975 ed., s.v. "Great Britain: Education," by A.D.C. Peterson.
4) Lord Robbins was the chairman of the Committee of Higher Education. The Report of the committee (1963) made the Government and the public think of the importance of higher education.
5) P.H.J.H. Gosden, *How They Were Taught* (Oxford: William Clowes and Sons Ltd. 1969), p.143.
6) D.C. Brooks, *The Emancipation of Women* (London: Macmillan and Co. Ltd., 1970), p.31.

7) Ibid. p. 42.
8) Ibid. p. 44.
9) Derek Birley and Anne Dufton, *An Equal Chance* (London: Routledge and Kegan Paul Ltd., 1971), p.26.
10) Labour Party (Great Britain) Study Group on Discrimination Against Women, *Discrimination Against Women* (London: The Labour Party, 1972), p. 3.
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